CLAIMS

1. A calcium phosphate base particulate compound satisfying the following expressions (a) to (d):

(a) $20 \leq Sw \leq 300$ (m^2/g);

(b) $1 \leq Tg \leq 150$ (mg/g);

(c) $0.005 \leq Dx50 \leq 0.5$ (μm); and

(d) $1.5 \leq Dx50/\sigma x \leq 20$

wherein,

Sw: BET specific surface area (m^2/g) measured by nitrogen adsorption method,

Tg: heat loss (mg/g) per 1 g of calcium phosphate base particulate compound from 250 to 500°C,

Dx50: cumulative 50% average diameter (μm) counted from larger particle side based on the observation by transmission electron microscope (TEM),

σx: standard deviation {In(Dx16/Dx50)}; and

Dx16: cumulative 84% average diameter (μm) counted from larger particle side based on the observation by transmission electron microscope (TEM).

2. The calcium phosphate base particulate compound according to claim 1 further satisfying the following expressions (e) and (f):

(e) $0.5 \leq \alpha \leq 5$, wherein $\alpha = Dxs50/Dx50$; and

(f) $0 \leq \beta \leq 3$, wherein $\beta = (Dxs90 - Dxs10)/Dxs50$,

wherein,

α: dispersion coefficient,

Dxs50: weight cumulative 50% average particle diameter (μm) counted from larger particle side in the particle size distribution measured by laser diffraction (SALD-2000, manufactured by Shimadzu Corporation),

β: sharpness,

Dxs90: weight cumulative 10% average particle diameter (μm) counted from larger particle side in the particle size distribution measured by laser diffraction (SALD-2000, manufactured by Shimadzu Corporation), and

Dxs10: weight cumulative 90% average particle diameter (μm) counted from larger particle side in the particle size distribution measured by laser diffraction (SALD-2000, manufactured by Shimadzu Corporation).

3. The calcium phosphate base particulate compound according to claim 1 or 2 further satisfying the following expressions (g) and (h):

(g) $0.005 \leq Dxp \leq 0.5$ (μm); and

(h) $20 \leq Dyp/Dxp \leq 200$

wherein,

Dxp: average fine pore diameter (μm) with which the mercury pressure penetration increase amount (integrated fine pore volume increase/log(average fine pore diameter)) becomes the maximum value (Dys) in the fine pore distribution in a range of 0.005 to 0.5 μm measured by mercury pressure penetration method,

Dyp: maximum value of the mercury pressure penetration increase amount (mg/l), and

Dyp/Dxp: amount of the average fine pore diameter.

4. The calcium phosphate base particulate compound according to any one of claims 1 to 3, wherein the crystal state of the calcium phosphate base particulate compound is mainly hydroxyapatite.

5. A production method of the calcium phosphate base particulate compound which comprises the steps of:

synthesizing calcium phosphate compound by reaction of a calcium compound and a water-soluble phosphoric acid compound in a pH range of 5 to 12,

aging the obtained calcium phosphate compound for 0.1 to 24 hours, and

heating the obtained calcium phosphate compound at 95 to 180°C.

6. A resin composition containing the calcium phosphate base particulate compound according to any one of claims 1 to 4 in a resin.

7. The resin composition according to claim 6, wherein the resin is for films and 0.01 to 10 parts by weight of the calcium phosphate base particulate compound is added to 100 parts by weight of the resin.

8. The resin composition according to claim 6, wherein the resin is for paper manufacturing and 10 to 1,000 parts by weight of the calcium phosphate base particulate compound is added to 100 parts by weight of the

resin.

9. A food composition containing the calcium phosphate base particulate compound according to any one of claims 1 to 4 in a food product.

10. The food composition according to claim 9, wherein 0.01 to 5 parts by weight of the calcium phosphate base particulate compound is added to 100 parts by weight of the food product.